

Remarks

Applicants have amended the specification to comply with formal matter requests made by the Examiner (as discussed further below). No new matter has been introduced.

Applicants have previously or herein canceled claims 1-20 without prejudice or disclaimer. Applicants reserve the right to pursue the subject matter encompassed by all canceled claims in one or more divisional or continuation applications. Claims 26, 35, 37, 49, 57, 63, 72, 74, 86 and 94 have been amended (as discussed further below). Claims 21-100 are currently pending. No new matter has been added.

Formal Matters

A new title that is "clearly indicative of the invention to which the claims are directed" has been requested. *See*, Paper No. 12082003, page 2, second from last paragraph. In respect of this request, Applicants have herein amended the title to read: "ANTIBODIES TO G-PROTEIN PARATHYROID HORMONE RECEPTOR HLTDG74".

Claims 31, 32, 53, 54, 68, 69, 90, 91, 99, and 100 were objected to under 37 C.F.R. § 1.75(c) as allegedly "being of improper dependent form for failing to further limit the subject matter of a previous claim." *See*, Paper No. 12082003, page 2, last paragraph. In particular it was noted, "The Examiner is unaware of any antibodies meeting the limitations of the independent claims that would not be suitable for use in western blotting or ELISA procedures." *See*, Paper No. 12082003, page 2, last paragraph.

Applicants respectfully disagree and traverse this objection. As an initial matter, it is, of course, true that the dependent claims meet the limitations of the independent claims, as this is an essential part of the definition of dependent claims. Furthermore, the dependent claims also further limit the subject matter from that encompassed by the independent claims. This is because, as understood by those of ordinary skill in the art, although some antibodies may be suitable for use in both Western blotting and ELISA procedures, not *all* antibodies are useful in *both* Western blotting and ELISA procedures. Most Western blotting procedures produce a denatured form of the protein, therefore, antibodies useful in a Western blot must be able to bind this denatured form of the protein. In contrast, most ELISA procedures use native (or renatured) forms of the protein. Therefore most, if not all, antibodies that require the native protein

conformation for binding will not bind the denatured form of the protein in a Western blot. Conversely most, if not all, antibodies that require the denatured form of the protein will not bind the native form of the protein in an ELISA procedure. Thus, some antibodies may be useful in a Western blot but not an ELISA, and some antibodies may be useful in an ELISA but not a Western blot. Therefore, claims 31, 32, 53, 54, 68, 69, 90, 91, 99, and 100 encompass a smaller genus of antibodies than the independent claims from which they depend. Therefore, it is respectfully requested that the objection to claims 31, 32, 53, 54, 68, 69, 90, 91, 99, and 100 under 37 C.F.R. § 1.75(c) be reconsidered and withdrawn.

Claim 10 was also objected to under 37 C.F.R. § 1.75(c). *See*, Paper No. 12082003, page 3, first paragraph. Applicants have herein canceled claim 10 without prejudice or disclaimer. Accordingly, this objection has been rendered moot.

The abstract of the invention has also been objected to because "there is no reference therein to the claimed antibodies." Correction was requested. *See*, Paper No. 12082003, page 3, second through last paragraphs. Applicants have herein amended the specification to include reference to the claimed antibodies and methods of making and using such antibodies.

The Examiner has indicated that should claims 23, 42, 49, 60, 79, or 83 be found allowable, then claims 26, 44, 46, 63, 81 and 86, respectively, will be objected to under 37 C.F.R. § 1.75 as being "a substantial duplicate thereof." *See*, Paper No. 12082003, page 4, first paragraph. Applicants disagree with this assertion and respectfully submit that such a rejection is improper. M.P.E.P. § 706.03(k) indicates "...court decisions have confirmed applicant's right to restate (*i.e.*, by plural claiming) the invention in a reasonable number of ways. Indeed, a mere difference in scope between claims has been held to be enough." Applicants submit that the above cited claims have a sufficient "difference in scope" such that they should not be rejected as duplicate claims.

The scope of the above cited claims involves two different issues. Applicants will discuss each of these issues in turn. One issue involves the following claim pairs:

claim 23 versus 26;
claim 46 versus 49;
claim 60 versus 63; and,
claim 83 versus 86

Using claims 23 and 26 as an example, Applicants point out that these claims (and the remainder of the above cited pairs) are different in scope. As an initial matter, to further clarify the issue in the interest of advancing prosecution, Applicants have herein amended claims 26, 49, 63, and 86 to encompass antibodies or fragments thereof that specifically bind protein (a) and (d) of the claims from which these claims depend. Thus, claim 23 depends from claim 21 and encompasses a genus of antibodies that specifically bind the polypeptide of claim 21(b) (*i.e.*, a protein consisting of amino acid residues 2 to 541 of SEQ ID NO:2). In contrast, claim 26 depends from claim 22 and encompasses a genus of antibodies that specifically bind the polypeptide of claim 21(d) and the polypeptide of claim 21(a) (*i.e.*, a protein consisting of amino acid residues 1 to 541 of SEQ ID NO:2, and a protein consisting of a portion of SEQ ID NO:2 wherein said portion comprises at least 50 contiguous amino acid residues of SEQ ID NO:2). The same explanation also applies to the claim scope encompassed by claim pairs 49 versus 46; 60 versus 63; and, 83 versus 86.

The second issue of claim scope involves claim pairs:

claim 42 versus 44; and,
claim 79 versus 81.

In this case, using claims 42 and 44 as an example. Applicants point out that claim 42 depends from claim 37 and, as such, claim 42 is drawn to an isolated monoclonal antibody or fragment thereof "obtained from an animal that has been immunized with a protein selected from..." (a), (b), (c), and (d). In contrast, claim 44 is drawn to "An isolated monoclonal antibody or fragment thereof that specifically binds to a protein selected from..." (a), (b), (c), and (d). Hence, claim 44 does not include the limitation of being "obtained from an animal that has been immunized...". Therefore, the scope of claims 42 and 44 are different and they should not be rejected as duplicate claims. The same explanation applies to claims 79 and 81.

The Examiner has requested amendment of the specification to include reference "to each separately numbered figure, e.g. Figures 1A and 1B." *See*, Paper No. 12082003, page 4, second paragraph. Applicants have herein amendment the specification to comply with this request.

The Examiner has alleged that the present application lacks formal drawings and indicated "When the application is allowed, applicant will be required to submit new formal

drawings." *See*, Paper No. 12082003, page 4, third paragraph. Applicants respectfully submit that this allegation has been made in error. Formal drawings (10 sheets) were submitted with the initial filing of the present application on November 30, 2001. This is evidenced by the itemized, date-stamped return receipt postcard (copy enclosed herewith) and also by publication of the formal drawings in the pre-grant publication of the present application (*see*, Publication No. 2002/0086363). Accordingly, Applicants respectfully request clarification on whether or not the originally submitted formal drawings are currently in the application file. If the formal drawings have been lost or misplaced, Applicants will send a replacement copy upon request.

Objections and Rejections under 35 U.S.C. § 101

Claim 10 was rejected under 35 U.S.C. § 101. *See*, Paper No. 12082003, page 4, last paragraph. Applicants have herein canceled claim 10 without prejudice or disclaimer. Therefore, the rejection of claim 10 has been rendered moot.

Objections and Rejections under 35 U.S.C. § 112, first paragraph

Claim 10 was rejected under 35 U.S.C. § 112, first paragraph. *See*, Paper No. 12082003, page 5, second paragraph. Applicants have herein canceled claim 10 without prejudice or disclaimer. Therefore, the rejection of claim 10 has been rendered moot.

Claims 27, 50, 64, and 87 (drawn to antibodies that bind glycosylated proteins) were rejected under 35 U.S.C. § 112, first paragraph, because:

...there is no disclosure of the glycosylation state of the protein as it occurs in nature, and further, as proteins may be artificially glycosylated, to the extent the glycosylation is other than that which would occur in nature, and further, to the extent that such glycosylation would either create epitopes not found in the disclosed protein or hide epitopes, there is no written description of the epitopes so created or affected, and hence of antibodies that bind specifically to the protein in a glycosylated state.

See, Paper No. 12082003, page 5, third paragraph.

Applicants respectfully disagree and traverse. The specification at page 11, penultimate paragraph, teaches that the polypeptide of the invention "may be a recombinant polypeptide, a natural polypeptide or a synthetic polypeptide..." The specification also teaches:

The polypeptides of the present invention may be a naturally purified product, or a product of chemical synthetic procedures, or produced by recombinant techniques from a prokaryotic or eukaryotic host (for example, by bacterial, yeast, higher plant, insect and mammalian cells in culture). Depending upon the host employed in a recombinant production procedure, the polypeptides of the present invention may be glycosylated or may be non-glycosylated.

See, specification, page 19, third paragraph. Further, the specification teaches:

Antibodies generated against the polypeptides corresponding to a sequence of the present invention can be obtained by direct injection of the polypeptides into an animal or by administering the polypeptides to an animal, preferably a nonhuman. The antibody so obtained will then bind the polypeptides itself.

Hence, the present specification teaches that antibodies can be generated against the polypeptide of the invention whether naturally or synthetically produced. This includes natural and synthetically produced glycosylated proteins. Further, animal immunization of such glycosylated proteins will result in production of antibodies that bind the glycosylated forms of the injected protein. Generation and production of such antibodies does not require knowledge or identification of the epitopes created or hidden by glycosylation. Production of antibodies may be performed in the complete absence of any knowledge of the particular epitopes which induce antibody binding. And, such methods were routinely performed by those of ordinary skill in the art as of the earliest claimed benefit date in the present application. As such, the present specification provides adequate written description for production of all of the claimed antibodies. Accordingly, it is respectfully requested that the rejection of claims 27, 50, 64, and 87 under 35 U.S.C. § 112, first paragraph, be reconsidered and withdrawn.

Claims 60, 76, and 83 (drawn to antibodies that bind a mature form of the polypeptide) were rejected under 35 U.S.C. § 112, first paragraph, based on an allegation that "There is no disclosure in the specification as originally filed of the 'mature' polypeptide, nor identification of the sequence that would be cleaved to make the 'mature' polypeptide." *See*, Paper No. 12082003, page 5, last full paragraph.

Applicants respectfully disagree and traverse. The present specification teaches that mature forms of the protein are those forms which can be expressed in mammalian cells, yeast, bacteria, other cells, or in cell-free translation systems. *See*, specification, page 16, last paragraph. Hence, mature forms of the protein may include naturally occurring post-translational modifications, such as glycosylation. *See also*, specification, page 19, second full

paragraph. Thus, the present specification describes mature forms of the protein as well as methods for producing such forms. *See e.g.*, specification at page 32, second full paragraph to page 33, second paragraph. Furthermore, this is consistent with the understanding of those of ordinary skill in the art. Mature forms of a protein are inherent to its protein sequence. As such, recombinant production of a protein in a given host cell expression system inherently results in production of its mature form. Thus, as understood by those of ordinary skill in the art different host cells, and even the same host cells, may produce multiple or alternate forms of the mature protein. And, those of skill in the art are readily able to recognize mature forms of a given protein (by correspondence to the full-length sequence) wherein said mature forms are produced a recombinant host cell expression system.

The Examiner has cited *Vas-Cath Inc. v. Mahurkar* in support of the current rejection. *See*, Paper No. 12082003, page 5, last paragraph to page 6, first paragraph. Applicants submit, however, that the present case is not in contravention of the decision in *Vas-Cath*. As set forth in that case, the test for the written description requirement is whether one skilled in the art could reasonably conclude that the inventor has possession of the claimed invention in the specification as filed. *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563, 19 U.S.P.Q.2d 1111, 1116 (Fed. Cir. 1991); M.P.E.P. § 2163.02. Furthermore, the Federal Circuit re-emphasized the well-settled principle of law that “[t]he written description requirement does not require the applicant ‘to describe exactly the subject matter claimed, [instead] the description must clearly allow persons of ordinary skill in the art to recognize that [they] invented what is claimed,’” *Union Oil Co. v. Atlantic Richfield Co.*, 208 F.3d 989, 54 U.S.P.Q.2d 1227 (Fed. Cir. 2000). While the applicant must “blaze marks on trees,” rather than “simply [provide] the public with a forest of trees,” an Applicant is not required to explicitly describe each of the trees in the forest. *See Unocal*, 208 F.3d at 1000. *See also* M.P.E.P. § 2163.02 (“The subject matter of the claim need not be described literally (*i.e.*, using the same terms or *in haec verba*) in order for the disclosure to satisfy the description requirement.”). The Court emphasized the importance of what the person of ordinary skill in the art would understand from reading the specification, rather than whether the specific embodiments had been explicitly described or exemplified. *See, e.g., Unocal*, 208 F.3d at 1001. Hence, in accord with *Vas-Cath, Inc. v. Mahurkar*, the specification clearly allows persons of ordinary skill in the art to conclude that the inventor has possession of the claimed invention in the specification as filed.

The Examiner also asserted:

With the exception of the non-glycosylated proteins, or the proteins having the disclosed sequence as produced recombinantly by cells described in the disclosure, the skilled artisan cannot envision the detailed chemical structure of the encompassed antibodies, and therefore conception is not achieved until reduction to practice has occurred, regardless of the complexity or simplicity of the method of isolation.

See, Paper No. 12082003, page 6, first full paragraph.

Applicants respectfully disagree and traverse. As an initial matter, "envisioning the detailed chemical structure" of the encompassed antibodies is unnecessary and irrelevant to production, identification, and use of the claimed antibodies. The presently claimed antibodies can be produced, isolated, and used according to methods described in the application and according to methods which were routinely understood and used by those of ordinary skill in the art as of the earliest claimed benefit date in the present application. Given the routine nature of antibody production at that time, the presently claimed antibodies could have been envisioned and produced starting *merely* with disclosure of the polypeptides in the present application. Hence, the written description provided in the present application is more than sufficient to convey conception and constructive reduction to practice of the presently claimed antibodies.

The Examiner also asserted:

Adequate written description requires more than a mere statement that it is part of the invention and reference to a potential method of isolating it. The nucleic acid itself is required. See, *Fiers v. Revel*, 25 USPQ2d 1601 at 1606 (CAFC 1993) and *Amgen Inc. v. Chugai Pharmaceutical Co. Ltd.*, 18 USPQ2d 1016.

See, Paper No. 12082003, page 6, first full paragraph.

Applicants respectfully disagree and traverse. *Fiers* and *Amgen* are quite distinct from the present case. *Fiers* involved a three-way interference in which each party sought to establish priority of invention of the DNA sequence encoding human fibroblast beta-interferon (B-IF). *Fiers v. Revel*, 984 F.2d 1164 (Fed. Cir. 1993). In *Fiers*, the Federal Circuit held that the inventor first to disclose the complete DNA sequence (*i.e.*, Sugano) was entitled to priority. *Fiers* at 1172. Similarly, *Amgen* was a dispute between two parties involving erythropoientin (EPO) and identification of the party with right of priority to the DNA sequence encoding EPO. *Amgen, Inc. v. Chugai Pharmaceutical Co.*, 927 F.2d 1200 (Fed. Cir. 1991). Thus, in *Amgen*

the Federal Circuit also held that the inventor first to disclose the complete EPO DNA sequence (*i.e.*, Lin) was entitled to priority. *Amgen*, at 1207. In contrast, even if nucleic acid sequences were at issue, as they were in *Fiers* and *Amgen*, these cases would not be relevant to the present case because, unlike *Fiers* and *Amgen*, in the present case a complete polynucleotide sequence encoding the polypeptide has already been disclosed. And, the currently pending claims are drawn to antibodies which bind polypeptide sequences which have also been disclosed in the present application.

Furthermore, *Fiers* and *Amgen* involved patent applications which were filed when reliable techniques in molecular biology and recombinant DNA manipulation were just beginning to emerge. In contrast, when the earliest application to which the present application claims benefit was filed, production of antibodies was well-known and routinely performed by those of ordinary skill in the art. Hence, as indicated above, the presently claimed antibodies could have been envisioned and produced upon *mere* provision of the polypeptides in the present application. Therefore, the additional written description provided in the present application is more than sufficient to convey conception and constructive reduction to practice of the presently claimed antibodies.

In view of the explanations provided above, it is respectfully requested that the rejection of claims 27, 50, 60, 64, 76, 83, and 87 under 35 U.S.C. § 112, first paragraph, be reconsidered and withdrawn.

Claims 58-94 were also rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the enablement requirement. In particular, the Examiner requested that applicants assure public availability of the biological material deposited in connection with the present application. To comply with the Examiner's request Applicants herein provide the following affirmation:

Availability of the Deposit

Human Genome Sciences, Inc., the assignee of the present application, has deposited biological material under the terms of the Budapest Treaty on the International Recognition of the Deposit of Micro-organisms for the Purposes of Patent Procedure with the following International Depository Authority: American Type Culture Collection (ATCC), 10801 University Boulevard, Manassas, Virginia 20110-2209 (present address). The deposit was made on June 1, 1995, accepted by the ATCC, and given ATCC Accession Number 97186. In accordance with

M.P.E.P. § 2410.01 and 37 C.F.R. § 1.808, assurance is hereby given that all restrictions on the availability to the public of ATCC Accession Number 97186 will be irrevocably removed upon the grant of a patent based on the instant application, except as permitted under 37 C.F.R. § 1.808(b). A partially redacted copy of the ATCC Deposit Receipt for Accession Number 97186 is enclosed herewith.

In view of the above affirmation, attested to by the signature (below) of the agent for the Applicants, it is respectfully requested that the rejection of claims 58-94 under 35 U.S.C. § 112, first paragraph, be withdrawn.

Rejections under 35 U.S.C. § 112, second paragraph

Claims 10, 35, 36, 43, 57, 72, 73, 80, 89, 94, and 95-100 were rejected under 35 U.S.C. § 112, second paragraph. *See*, Paper No. 12082003, page 7.

Applicants have herein canceled claim 10 without prejudice or disclaimer. Therefore, the rejection of claim 10 has been rendered moot.

Claims 35, 57, 72, and 92 were rejected as allegedly lacking a nexus between step (a) and step (b). *See*, Paper No. 12082003, page 7, third from last paragraph. As an initial matter, Applicants understanding is that this rejection was intended to refer to claim 94 instead of claim 92; since claim 92 is not a method claim, and claim 94 is the same type of method claim as claims 35, 57, and 72. Second, Applicants respectfully disagree that a proper nexus is lacking. However, Applicants have herein amended part (b) in claims 35, 57, 72, and 94 to further clarify the nexus, in the interest of advancing prosecution.

Claims 43 and 80 were alleged to be indefinite "because the claims require that the antibody or fragment be 'obtained from an animal', and also require that said antibody be 'chimeric' or 'humanized', neither of which antibodies can be obtained from animals." *See*, Paper No. 12082003, page 7, penultimate paragraph. Applicants respectfully disagree and traverse. In contrast to the above assertion, chimeric and humanized antibodies were known to be obtainable from animals immunized with antigen on or before the earliest claimed benefit date in the present application. As an example, please consider *Zou, et al.*, "Generation of a Mouse Strain That Produces Immunoglobulin k Chains with Human Constant Regions", *Science*, v.262, pp.1271-1274 (1993) (copy included herewith). *Zou et al.* shows that chimeric humanized antibodies specific for immunized antigens could be obtained from transgenic mice at least as early as 1993. *See, Zou et al.* at 1273, middle column, first paragraph; and, Fig. 4.

The Examiner also suggested amending the independent claims from which claims 43 and 80 depend to clarify that the claimed antibody fragments encompass post-isolation cleavage fragments as well as naturally occurring fragments. Accordingly, Applicants have herein amended independent claims 37 and 74 to accommodate the Examiner's suggestion.

Claim 95 was rejected as allegedly being "indefinite because (a) there is no nexus between the recited polynucleotide and the PTH receptor expressed on the cells." *See*, Paper No. 12082003, page 8, first paragraph. Applicants respectfully disagree and traverse. Applicants submit that claim 95 clearly contains a nexus between the recited polynucleotide and the PTH receptor expressed on the cells by virtue of said polynucleotide which encodes the PTH receptor being described as "operably associated with a regulatory sequence that controls expression of said polynucleotide." *See*, claim 95 (emphasis added).

The remaining dependent claims were rejected as indefinite "for depending from an indefinite claim." *See*, Paper No. 12082003, page 8, second paragraph.

In view of the explanations and amendments provided above, Applicants submit that each of the above rejections have been accommodated or overcome. Therefore, it is respectfully requested that the rejection of claims 10, 35, 36, 43, 57, 72, 73, 80, 89, 94, and 95-100 under 35 U.S.C. § 112, second paragraph, be reconsidered and withdrawn.

Rejections under 35 U.S.C. § 102(e)

Claims 10, 21-27, 29, 31-50, 53-64, 66, 68-79, 81-87, 90-100 were rejected under 35 U.S.C. § 102(e) as allegedly anticipated by *Segre et al.*, U.S. Patent No. 5,840,853. *See*, Paper No. 12082003, page 8. In particular, the rejection was based on a 19 amino acid peptide sequence in *Segre* (SEQ ID NO:7) which matches a 14 amino acid segment in the polypeptide of the present invention (SEQ ID NO:2). *See*, Paper No. 12082003, page 8, last paragraph. Thus, the Examiner asserted that "As antibodies Segre's SEQ ID NO:7 would bind to larger proteins comprising that sequence, the claims are anticipated by Segre et al." *See*, Paper No. 12082003, page 9, first full sentence.

Applicants respectfully disagree and traverse. As an initial matter, Applicants note that the 19 amino acid residues of SEQ ID NO:7 in *Segre* constitute a segment of the polypeptide shown in SEQ ID NO:3 in *Segre* (*i.e.*, SEQ ID NO:7 matches amino acid residues 285 to 304 in SEQ ID NO:3). And, SEQ ID NO:3 in *Segre* is the polypeptide sequence for "rat bone PTH/PTHrP receptor". *See*, *Segre*, column 4, lines 38-40. And, in accord with the Examiner's

assertion, since SEQ ID NO:7 is 100% identical to a segment of SEQ ID NO:3, antibodies which bind SEQ ID NO:7 would also bind rat bone PTH/PTHrP receptor (i.e., SEQ ID NO:3).

In contrast, the presently pending claims are drawn to antibodies that specifically bind G-protein Parathyroid Hormone Receptor HLTDG74 polypeptides, including species orthologs of the present invention. As such, it is understood by those of ordinary skill in the art that antibodies which specifically bind do not cross-react with non-orthologous proteins or other unrelated proteins. Thus, the pending claims are not drawn to antibodies that cross-react with species paralogs such as rat bone PTH/PTHrP receptor (*Segre* SEQ ID NO:3) or human PTH/PTHrP (*Segre* SEQ ID NO:4). Hence, antibodies that cross-react with SEQ ID NO:7 (or SEQ ID NO:3) of *Segre* and G-protein Parathyroid Hormone Receptor HLTDG74 polypeptides of the present invention are not encompassed by the currently pending claims. Thus, *Segre et al.* does not constitute an anticipating reference to the currently pending claims. Accordingly, Applicants respectfully request that the rejection of claims 10, 21-27, 29, 31-50, 53-64, 66, 68-79, 81-87, 90-100 under 35 U.S.C. § 102(e) be reconsidered and withdrawn.

Rejections under 35 U.S.C. § 103(a)

As per the Examiner's request, Applicants confirm that the subject matter encompassed by each of the currently pending claims was commonly owned at the time of the invention. *See*, Paper No. 12082003, page 9, first full paragraph.

Claims 30, 52, 67, 80, and 89 were rejected under 35 U.S.C. § 103(a) as allegedly "being unpatentable over *Segre et al.*, U.S. Patent Number 5,840,853, in view of U.S. Patent Number 5,565,332 (*Hoogenboom et al.*), or in view of U.S. Patent Number 4,946,778 (*Ladner et al.*)."
See, Paper No. 12082003, page 9, second full paragraph.

Applicants respectfully disagree and traverse. In particular, since *Segre et al.* does not constitute an anticipatory reference, as discussed above, this reference cannot properly be combined with *Hoogenboom* or *Ladner* to produce an obviousness reference against the currently pending claims. Accordingly, Applicants respectfully request that the rejection of claims 30, 52, 67, 80, and 89 under 35 U.S.C. § 103(a) be reconsidered and withdrawn.

Claims 28, 51, 65, and 88 were rejected under 35 U.S.C. § 103(a) as allegedly "being unpatentable over *Segre et al.*, U.S. Patent Number 5,840,853, in view of U.S. Patent Number 5,298,419 (*Masuho et al.*)."
See, Paper No. 12082003, page 10, third paragraph.

Applicants respectfully disagree and traverse. Since *Segre et al.* does not constitute an anticipatory reference, as discussed above, this reference cannot properly be combined with *Masuho* to produce an obviousness reference against the currently pending claims. Accordingly, Applicants respectfully request that the rejection of claims 28, 51, 65, and 88 under 35 U.S.C. § 103(a) be reconsidered and withdrawn.

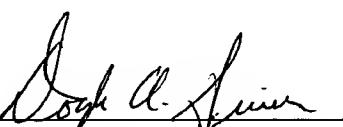
Conclusion

Applicants respectfully request that the above-made remarks be entered and made of record in the file history of the instant application. The Examiner is invited to call the undersigned at the phone number provided below if any further action by Applicant would expedite the examination of this application.

If there are any fees due in connection with the filing of this paper, please charge the fees to our Deposit Account No. 08-3425. If a fee is required for an extension of time under 37 C.F.R. § 1.136, such an extension is requested and the fee should also be charged to our Deposit Account.

Dated: March 11, 2004

Respectfully submitted,

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